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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,887	03/07/2005	Hans-Georg Fritsche	52201-0636	4136

28481 7590 01/10/2008  
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EXAMINER
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NGUYEN, PHU HOANG

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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01/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/525,887

Applicant(s)

FRITSCHKE ET AL.

Examiner

Phu H. Nguyen

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Acknowledgement is made of Amendment received 10/19/2007. Claims 1-2,4-5 and 11-13 are currently amended. Claims 3, 6-10 and 14-26 are canceled.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbott et al. (U.S Patent No. 5211732) as applied to claims 1 and 2 above, and further in view of admitted prior art DE-C 198 27 945 with U.S equivalent Fritsche et al. (U.S 6321573).

Regarding claims 1 and 2, Abbott discloses a method for producing a quartz glass blank comprising: a method step in which SiO<sub>2</sub> particles are produced by a row of deposition burners and deposited on a cylinder outer surface of a carrier rotating about a longitudinal axis thereof to form a cylindrical porous SiO<sub>2</sub> soot body (column 3, line 1-12). Abbott also discloses the soot produced by the burner array will have a constant composition, e.g., it will typically be pure silica (column 5, line 59-61). Furthermore, an inner wall (69, fig. 6) of a housing (33, fig. 6) surrounding the SiO<sub>2</sub> soot body and extending along a substantial part of the SiO<sub>2</sub> soot body, inherently acts as a temperature adjustment body (reflecting or absorbing heat) altering a surface temperature of the soot body as it is being formed. Abbott does not expressly disclose

the temperature adjustment body is a reflector element. Fritsche discloses a flat stainless steel sheet (41, fig. 4 and 5) has surfaces (42, fig. 4 and 5) which reflect infrared radiation in one embodiment (column 7, line 9-11) to prevent temperature peaks without incurring high costs for equipment and controls. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Abbott by using the reflector element as taught by Fritsche to control the temperature of the soot and preventing temperature peaks.

Since Fritsche does not put a limit on the range of reflectance nor the efficiency of the reflector, one of ordinary skill in the art at the time the invention was made would include the range of reflectance that overlapping with the range 80% to 100% for the surfaces (42) and the range of efficiency that overlapping with at least 60%.

Regarding claims 4, 5 and 12, Fritsche discloses in an embodiment, a heat shield (63, fig. 6) which has a concave shape to approximate the shape of the preform (61, fig. 6) (reflect heat of the deposition burners and heat of the forming  $\text{SiO}_2$  soot body), is arranged on the side of the preform wherein the distance between the heat shield and the preform being formed is set at a constant (column 7, line 18-26). Accordingly claims 4, 5 and 12 are rejected.

Regarding claim 13, Fritsche discloses the reflector element (carried by a common bar 15, fig. 1) extends over the whole usable length of the soot body as shown on figure 1. Accordingly, claims 11 and 13 are rejected.

### ***Response to Arguments***

Applicant's arguments filed 10/19/2007 have been fully considered but they are not persuasive.

Applicant essentially argues that Fritsche does not suggest a method of producing quartz glass blank using one or more reflector elements covering the forming SiO<sub>2</sub> soot body and having an efficiency, defined as a solid angle covering the forming soot body, of at least 60%. However, as discussed above for claim 1, since Fritsche does not put a limit on the efficiency of the reflector element, one of ordinary skill in the art at the time the invention was made would expect the efficiency range including 60%.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu H. Nguyen whose telephone number is 571-272-5931. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

P.N 1/6/2008

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700